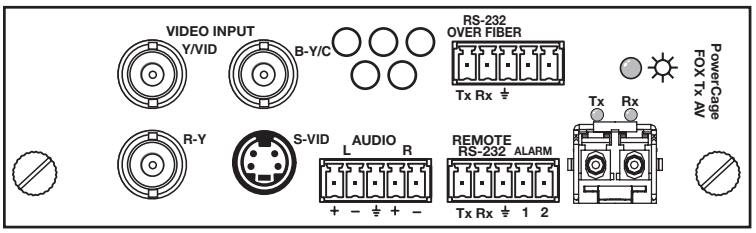
PowerCage™ FOX Tx/Rx AV • Setup Guide

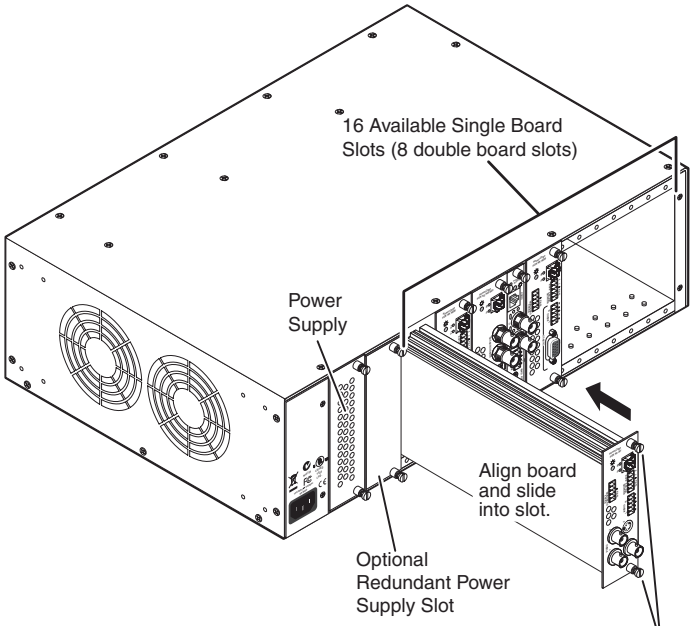
This guide provides instructions for an experienced installer to set up and operate the Extron® PowerCage FOX Tx/Rx AV fiber optic video and audio extenders.



IMPORTANT:
Refer to www.extron.com for the complete user guide and installation instructions before connecting the product to the power source.

The Extron PowerCage FOX Tx/Rx AV is a modular transmitter and receiver pair of boards for the PowerCage 1600 enclosure, providing long distance transmission of standard definition video, audio, and data (RS-232) signals over a fiber optic cable at rates of up to 2 Gbps.

The PowerCage FOX AV Tx and Rx boards are compatible with the FOX Tx/Rx AV fiber optic video transmitter and receiver as well as the FOX Series of distribution amplifiers, switchers, and matrix switchers. They are **not** compatible with the FOXBOX, FOX 500 (RGB) and FOX 500 DVI, FOX 500 DA6, FOX 3G HD-SDI, and PowerCage FOX DVI and VGA boards.


16 Available Single Board Slots (8 double board slots)
Power Supply
Align board and slide into slot.
Optional Redundant Power Supply Slot
Screws (2 per board)

NOTE: Power supplies can occupy only these two power supply slots. (Each power supply can be mounted in either slot.)

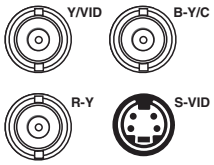
Installation

Step 1 — Install the Boards in the Enclosure

Install the Tx, Rx, or both boards in the PowerCage 1600 enclosure slots as required. Use a screwdriver or other tool to tighten the two screws that hold each board in place. (See the illustration at right.)

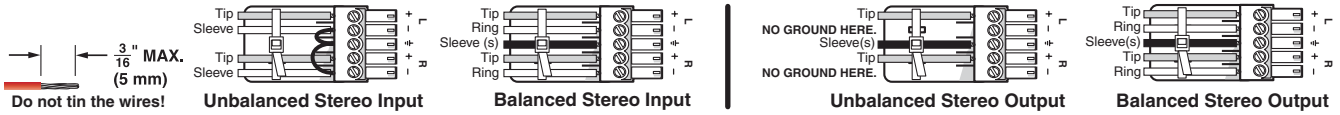
NOTE: Ensure that the boards are flush with the rear of the enclosure and that the screws are tightened securely before applying power.

Step 2 — Connect the Input and Outputs



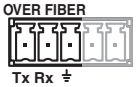
a. Connect a low-resolution (composite, S-video, or component) video source to one or more Video Input connectors on the transmitter. Connect a video output device to one or more Video Output connectors on the receiver. (The video input connectors on the transmitter are identical in appearance to the video output connectors on the receiver; both are shown at right.)

b. Connect a balanced or unbalanced, stereo or mono audio input source to the Audio captive screw connector on the transmitter. Connect a balanced or unbalanced stereo or mono audio output device to the Audio captive screw connector on the receiver. (See the illustrations below.)



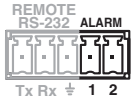
CAUTION: For unbalanced audio, connect the sleeves to the **ground** contact. ***DO NOT*** connect the sleeves to the negative (–) contacts.

Step 3 — Connect Cables for Serial Control of an Output Device (Optional)



If you want the PowerCage FOX Tx/Rx AV units to pass serial data or control signals, such as for serial control of a projector, connect the controlling device to the transmitter and the other device to the first three poles of the RS-232 Over Fiber captive screw connectors on ***both*** units.

Step 4 — Connect an Alarm (Optional)

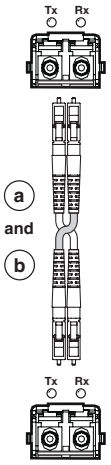


For remote monitoring of the status of the Rx optical link on either unit, connect a contact closure device to the two Alarm poles of the Remote RS-232/Alarm 5-pole captive screw connector on the unit. When no signal light is detected, the two poles of the connector are shorted together to activate an alert (such as sounding an alarm, turning on a room light, or sending an e-mail).

Step 5 — Connect the Fiber Optic Cable

NOTE: See the two fiber cable connection drawings at right and below. You can connect the transmitter and one or more receivers in one of the following ways:

- **Unidirectional (transmitter to receiver) only:** perform step **a**.
- **Bidirectional (transmitter to receiver and return):** perform steps **a** and **b**.
- **Unidirectional (transmitter to receiver) with daisy-chain (receiver to receiver):** perform steps **a** and **c**.

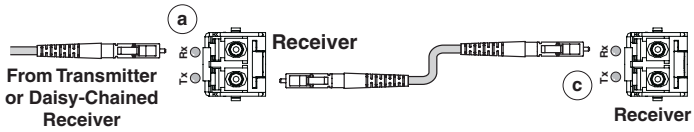


a. Connect a fiber optic cable between the Tx port on the transmitter and the Rx port on the receiver.

b. If you want the receiver to send return serial data (such as responses from a controlled device) to the transmitter, connect a fiber optic cable between the Tx port on the receiver and the Rx port on the transmitter.

c. If you want a receiver to daisy-chain the optical signal to another receiver (up to 10 receivers in a daisy-chain):

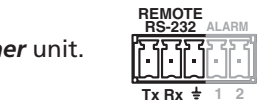
- Connect a fiber cable from the Tx port on the receiver to the Rx port on another receiver.
- Set each receiver to daisy-chain mode. See "Normal and Daisy Chain Modes," below.

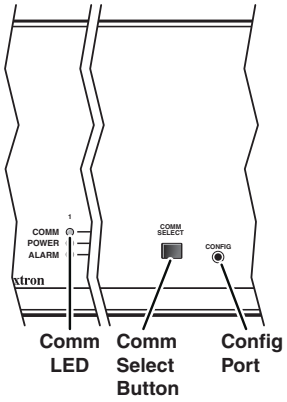


Step 6 — Connect to the Host (Optional)

For serial control of the transmitter and receiver, connect a host device, such as a computer, to either:

- The first three poles (Tx, Rx, and ⏚) of the Remote RS-232/Alarm 5-pole captive screw connector on ***either*** unit.
- The Config connector on the PowerCage 1600 enclosure front panel using an optional 9-pin D to 2.5 mm mini jack TRS RS-232 cable (part number 70-335-01). Repeatedly press the front panel Comm Select button until the Comm LED lights for the slot where the PowerCage FOX Tx/Rx AV transmitter or receiver board is installed.





The protocol for these ports is:

- 9600 baud
- no parity
- 8 data bits
- 1 stop bit
- no flow control

Refer to the *PowerCage FOX Tx/Rx AV User Guide* for detailed information about using the Simple Instruction Set (SIS™) commands and the FOX Extenders Control Program to set up and operate the transmitter and receiver and to use the adjustments and test patterns on the PowerCage FOX Tx/Rx.

Operation

After all receivers, the transmitter, and connected devices are powered up, the system is fully operational. If any problems occur, verify that the cables are routed and connected properly and that all display devices have identical resolutions and refresh rates. If problems persist, call the number shown below for the Extron S3 Sales & Technical Support Hotline at the Extron site closest to you.

Normal and Daisy Chain Modes

The receiver operates in one of two modes:

- **Normal mode** — The receiver outputs RS-232 and SIS commands and responses on its Tx LC connector.
- **Daisy-chain mode** — On its Tx connector, the receiver outputs the signal stream that it receives on its Rx connector. Up to 10 receivers, each in daisy chain mode, can be connected to a single transmitter.

Use SIS commands issued to the connected unit to toggle between normal and daisy-chain modes. Connect a computer to the Remote RS-232 port of either unit or to the Config port on the PowerCage enclosure and issue the **66*0****n*# command. For *n*:

2 = Enable daisy chain mode; **0** or **1** = disable daisy chain mode.

You can also switch operating modes using the FOX Extenders Control Program (refer to the program help file for details).

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